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**Lecture title:** Myology / Abdominal muscles

**Lecturer Affiliation:** Omar Younis Altaey, BVMS, MSc, (Lecturer)  
Department of Anatomy, College of Veterinary Medicine, University of Mosul,  
Mosul, Iraq <https://orcid.org/0000-0001-8804-6780> ,  
[https://www.researchgate.net/profile/Omar-Younis-3?ev=hdr\\_xprf](https://www.researchgate.net/profile/Omar-Younis-3?ev=hdr_xprf)

**Introduction**

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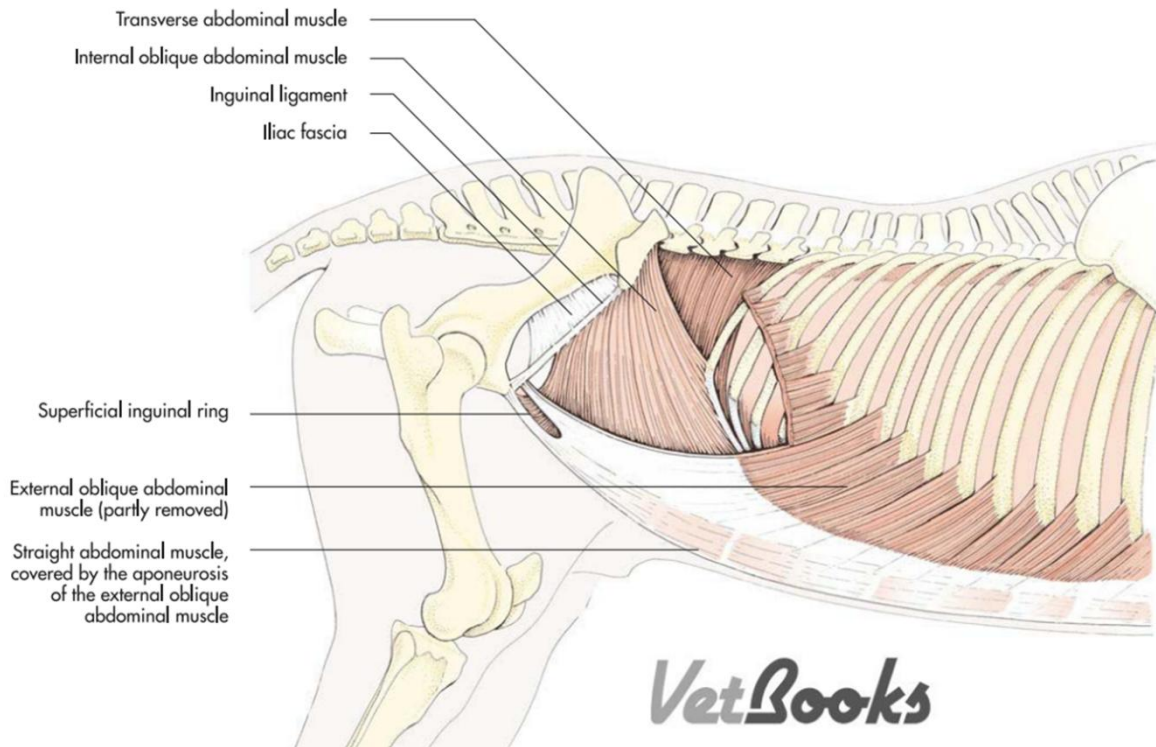
The muscles of the abdominal wall are extensive, relatively thin, muscular sheets, which constitute, together with their aponeuroses,

This group comprises several individual muscles, arranged in three layers, superimposed upon each other, with contrasting orientation of their fibers.

The muscles of this group arise from the cranial border of the pelvis, the lumbar region and the caudal part of the thorax and form the lateral and ventral wall of the body

**Linea alba:** is a tendinous cord, which extends between the xiphoid cartilage and the cranial border of the pelvis, where it inserts to the prepubic tendon , the straight abdominal muscle, which pursues a sagittal course within the abdominal floor on both sides of the linea alba

**Inguinal ligament:** extend from the iliopubic eminence to the coxal tuberosity close to the iliac fascia on either side of the prepubic tendon. There is an opening between the inguinal ligament, the iliac fascia and the cranial border of the pubis, which allows passage to the psoas major and iliac muscles



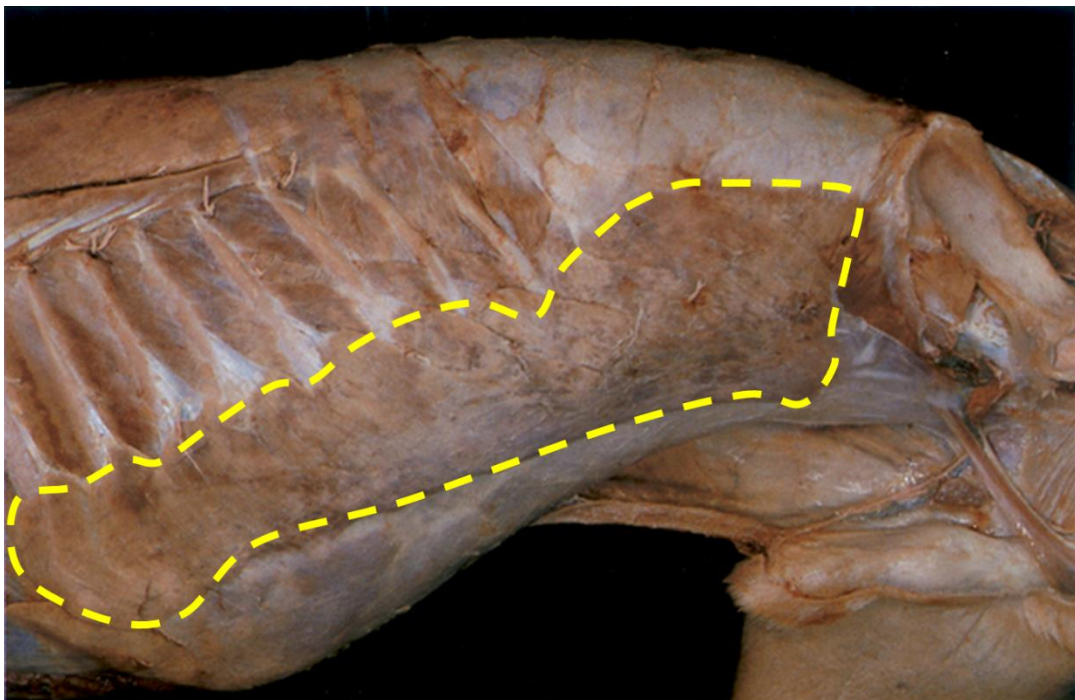
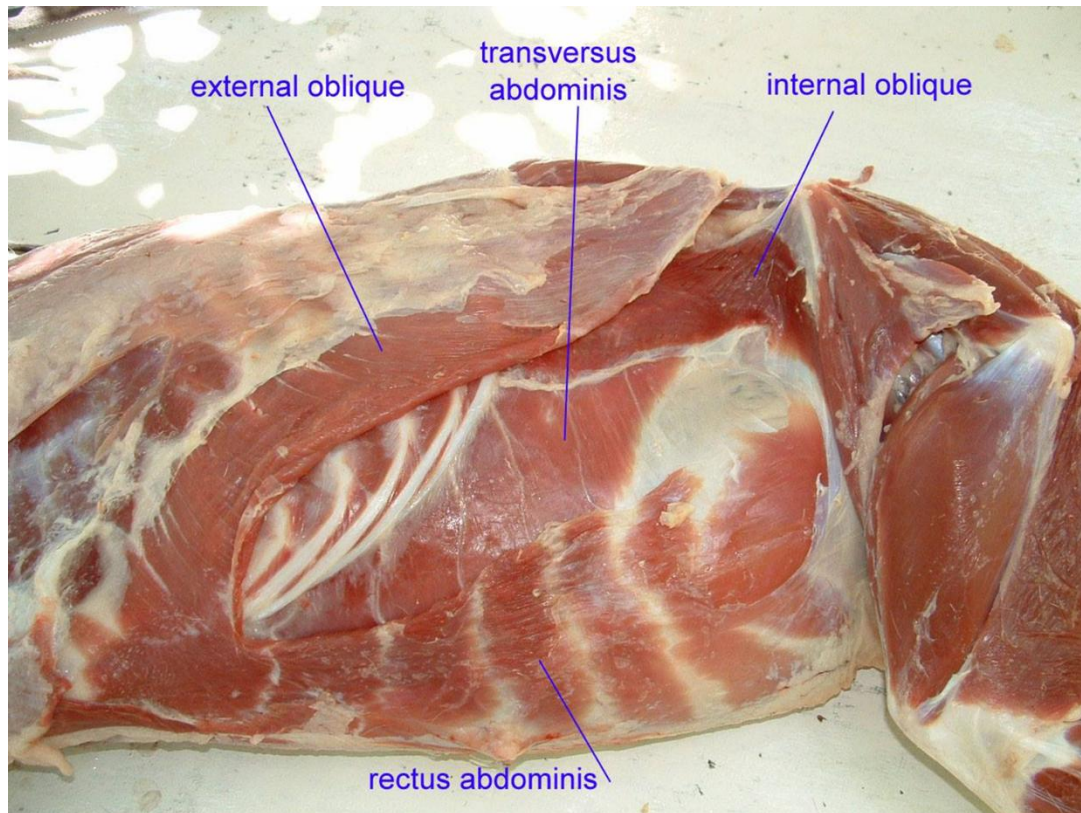
## Abdominal muscles

### 1. External Abdominal Oblique (Musculus obliquus externus abdominis)

Origin: Lateral surfaces of the ribs and thoracolumbar fascia

Insertion: Linea alba and prepubic tendon

Action: Compresses abdominal cavity; aids in expiration and trunk flexion





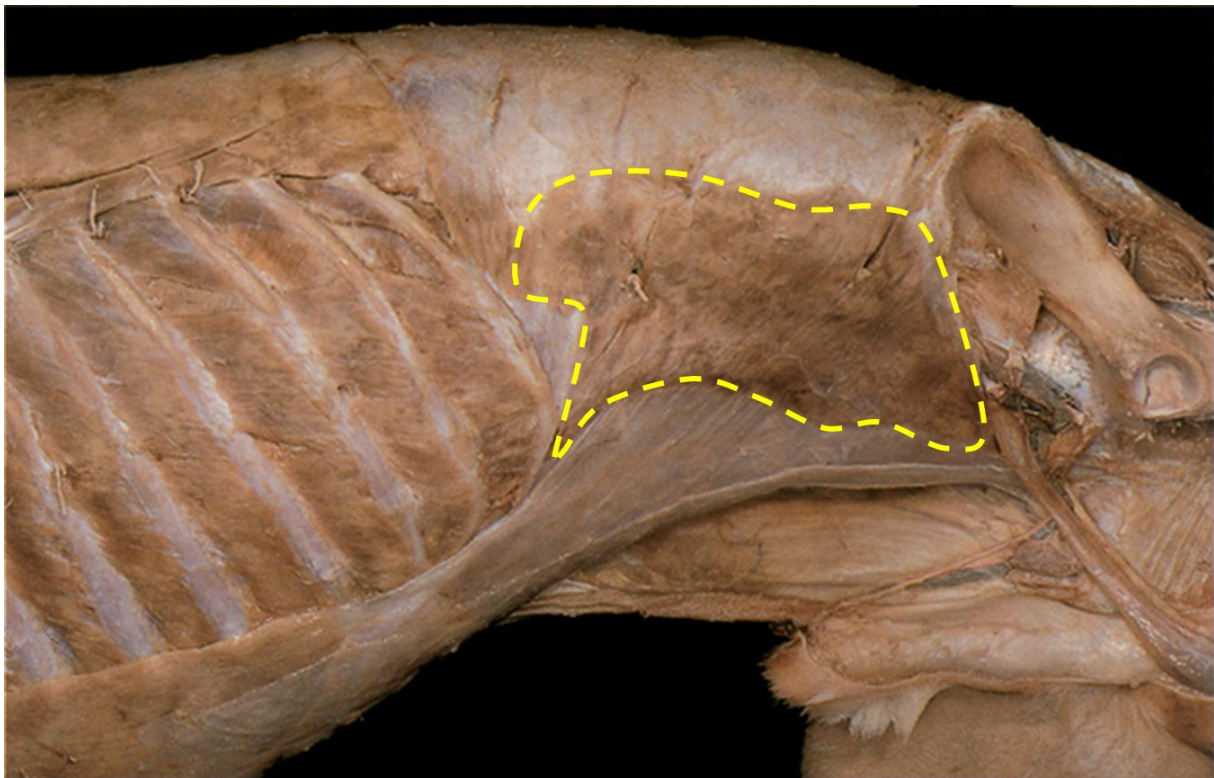


## 2. Internal Abdominal Oblique (Musculus obliquus internus abdominis)

Origin: Tuber coxae and inguinal ligament

Insertion: Last ribs and linea alba

Action: Compresses abdominal contents; supports abdominal press; flexes vertebral column



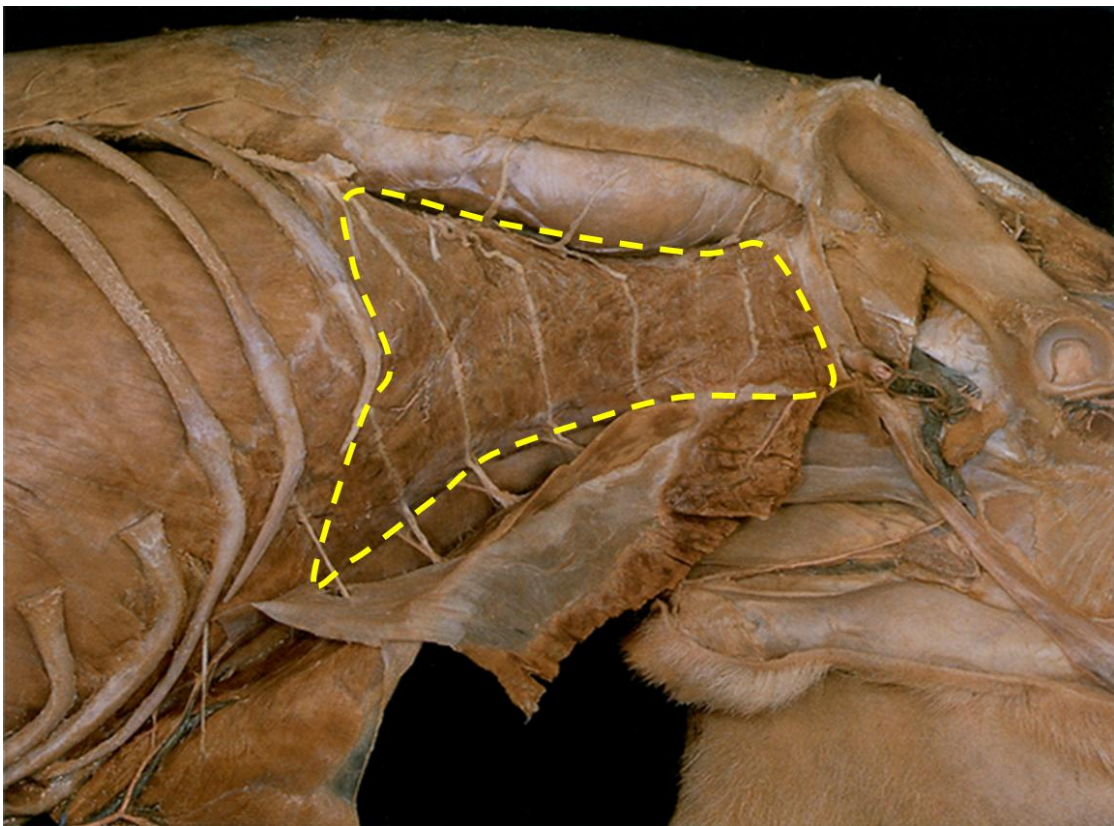


### 3. Transversus Abdominis (Musculus transversus abdominis)

Origin: Medial surfaces of the last ribs and transverse processes of lumbar vertebrae

Insertion: Linea alba

Action: Compresses abdominal contents; stabilizes the vertebral column





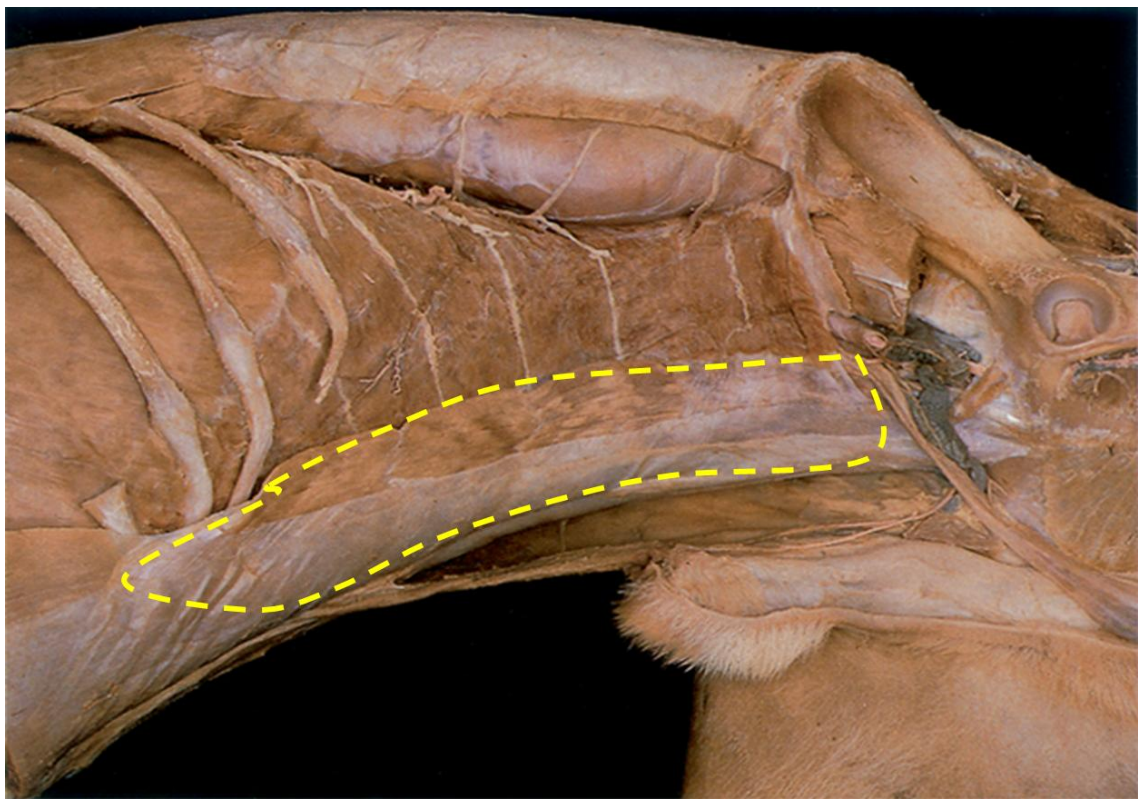
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#### 4. Rectus Abdominis (Musculus rectus abdominis)

Origin: Sternum and costal cartilages

Insertion: Prepubic tendon

Action: Compresses abdominal viscera; flexes lumbar spine



#### 5. Cremaster Muscle (in males, part of internal oblique origin)

Origin: Caudal border of internal abdominal oblique

Insertion: Spermatic cord and tunica vaginalis

Action: Elevates the testis